

REMARKS

Claims 1-4, 7, 9, 10 and 34-36 are pending. Claims 5, 6, 8 and 11-33 were previously canceled. Claims 1-4, 7, 9 and 10 have been amended, incorporating subject matter disclosed on, *e.g.*, page 15, lines 6-23 of the corresponding PCT publication. New claims 34-36 have been added, incorporating subject matter disclosed on, *e.g.*, page 15, lines 6-23 and Examples 6-9 of the corresponding PCT publication. No new matter is added. Favorable consideration of the currently pending claims is respectfully requested in light of the foregoing amendments and following remarks.

Claim Objections

Claims 2 and 10 were objected to as being in improper form. These claims have been amended so that they are in proper Markush claim form, and applicant respectfully requests that the objection be withdrawn.

Rejections Under 35 U.S.C. § 102

Claims 1-4, 7 and 9 are rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 3,434,479 to Till *et al.* ("Till"). Applicant respectfully traverses the rejection in view of the amendments presented above and the following remarks.

Till describes a cigarette filter formed by impregnating an adsorbent with a water-soluble permanganate. (Till, col. 1, lines 24-25 and col. 2, lines 61-63). The adsorbent is impregnated with the permanganate by soaking it in an aqueous permanganate solution. (*Id.*, col. 2, lines 63-67).

Claim 1 of the present application, as amended, relates to a “high capacity filtration media consisting of a porous substrate impregnated with a permanganate . . . having a solubility in water greater than that of potassium permanganate” and having a concentration in the media of “approximately 8-25% permanganate salt by weight.” Further, “the filtration media is configured to remove contaminants from a high flow air stream.”

The cigarette filter of Till is not a high capacity filter, and is not suitable for filtering contaminants from a high flow air stream. The filter of Till is formed by soaking an adsorbent in a permanganate solution. While this process can be used to form a filter having relatively high permanganate concentrations, this is not a preferred process for forming a high capacity filter suitable for filtering contaminants from a high flow air stream. Simply soaking the adsorbent in the permanganate solution does not ensure that the permanganate will be evenly distributed throughout the adsorbent. Portions of the filter would thus have relatively lower concentrations of permanganate, and the removal efficiency of the filter would be decreased due to contaminated air passing through portions of the filter having inadequate impregnate contained therein. The presently claimed high capacity filtration media must be able to filter high volumes of air (*see* claim 1 and new claims 34 and 35). The cigarette filter of Till would not be able to filter contaminated air at these high flow rates.

In contrast, as discussed in the present application, the claimed high capacity filtration media is preferably formed by spraying a heated aqueous permanganate solution directly into the dried substrate (*e.g.*, alumina), while the substrate is tumbled in a tumble mill (*see, e.g.*, Example 3 of the present application). This process results in formation of pellets having a

nearly uniform permanganate concentration, which, when incorporated into a filter, can remove contaminants from a high flow air stream as presently claimed.

For at least the reasons presented above, claim 1, as amended, is novel and nonobvious over Till, and applicant respectfully requests that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn.

Claims 2-4, 7 and 9 are dependent on claim 1 and include all of its limitations. As claim 1 is believed to be allowable, these claims are also allowable as dependent on an allowable base claim. Accordingly, applicant respectfully requests that the rejection of these claims under 35 U.S.C. § 102(b) be withdrawn.

Rejections Under 35 U.S.C. § 103

Claims 9 and 10 are rejected under 35 U.S.C. § 102(3) as allegedly obvious in view of Till and further in view of U.S. Patent No. 6,004,522 to England *et al.* ("England"). Claims 9 and 10 are dependent on claim 1 and include all of its limitations. Moreover, England does not cure the deficiencies of Till described above. Accordingly, claims 9 and 10 are allowable as dependent on allowable claim 1, and applicant requests that the rejections under 35 U.S.C. § 103(a) be withdrawn.

New Claims

New claims 34-36 are dependent on claim 1 and include all of its limitations. Accordingly, these claims are allowable as dependent on allowable claim 1, and applicant requests that they be given favorable consideration.

CONCLUSION

Applicant respectfully requests reconsideration of the present application in view of the foregoing. Applicant submits that all claims are in condition for allowance. Such action is courteously solicited. The Examiner is respectfully invited to contact the undersigned if there are matters that can be addressed by telephone at 404-815-6500.

Respectfully submitted,

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